PICTURE OF THE MONTH

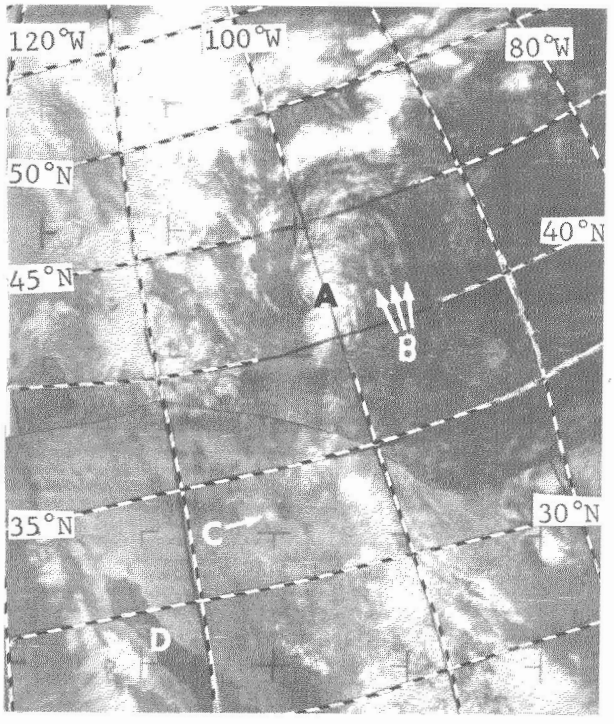

FIGURE 1.—ESSA 2 APT (Automatic Picture Transmission) photomosaic, 1553 GMT June 22, 1966.

The ESSA 2 APT photomosaic (fig.1) shows the cloud pattern (A) associated with a developing squall line in central Nebraska. The convective activity developed in a tongue of warm moist air which at 850 mb. (fig. 2) extended north-northeastward from New Mexico to the Dakotas. The squall-line cloudiness was just in advance of a short-wave 500-mb. trough (fig. 2).

Of particular interest are the small bands of cirriform clouds (B) which emanate from the north side of the cloud mass and turn sharply anticyclonically to extend east of the main cloud mass. This cloud pattern is typical of squall lines which form along narrow warm tongues. These bands of high-level clouds (B) are aligned parallel to the thermal wind, as shown in the 1000–500-mb. thickness analysis in figure 3, and are also parallel to higher-level isotherms. The squall line activity moved northeastward, intensified during the 6-hour period subsequent to the time of the APT photomosaic shown here, and then dissipated.

Other features of interest in figure 1 are White Sands, New Mexico, which appears as a small white dot at point C, and the Gulf of California which is visible at D.

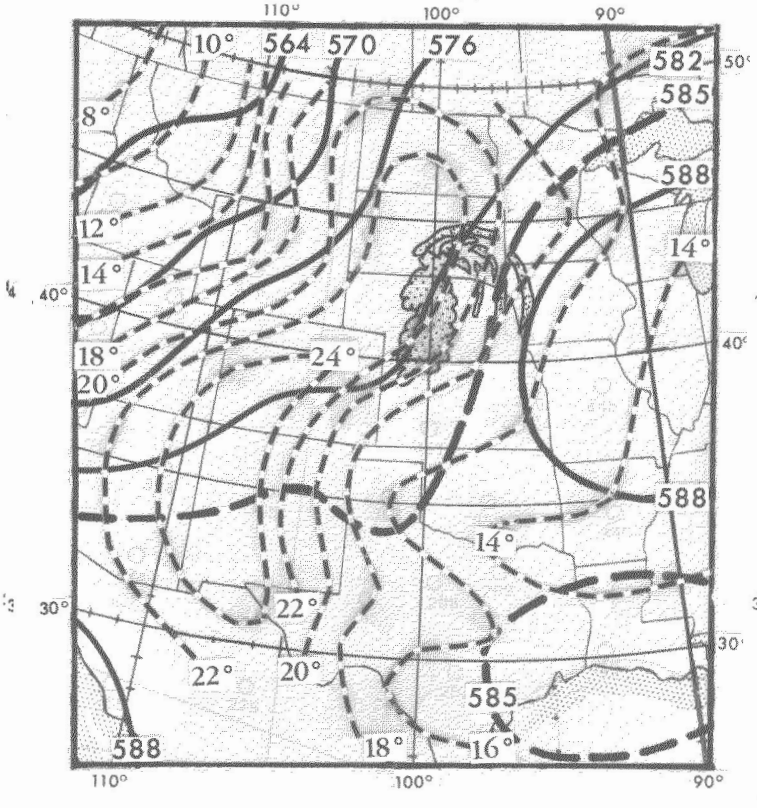

FIGURE 2.—500-mb. analysis (solid lines) and 850-mb. isotherms (dashed lines), 1200 GMT June 22, 1966. Stippled area denotes clouds associated with squall lines seen in figure 1.

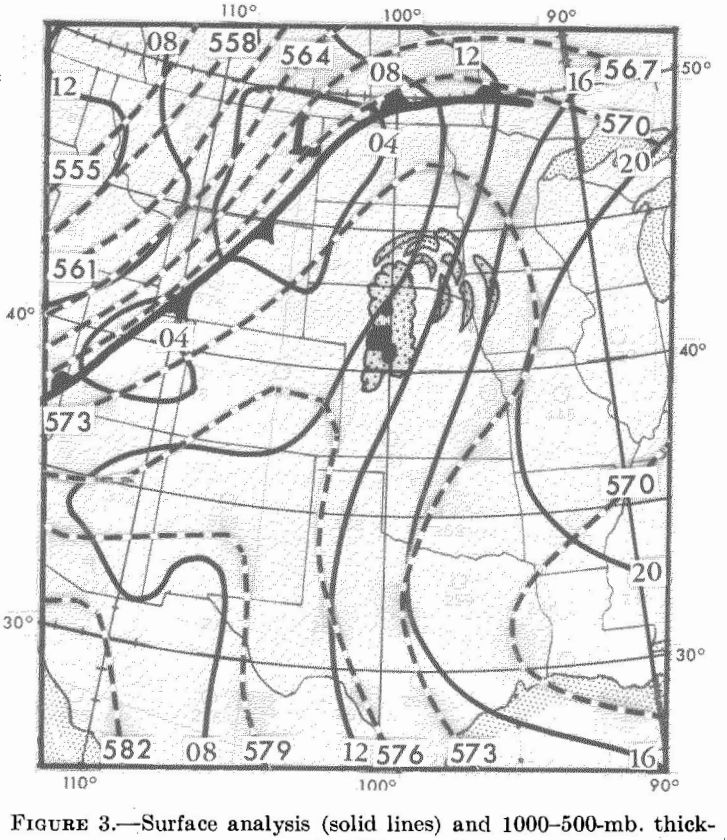

FIGURE 3.—Surface analysis (solid lines) and 1000–500-mb. thickness analysis (dashed lines), 1200 GMT June 22, 1966. Stippled area denotes squall-line cloudiness seen in figure 1 and solid shading represents radar echoes observed at 1445 GMT.